

AN INCLUSIVE APPROACH TO ONLINE LEARNING ENVIRONMENTS: Models and Resources

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ABSTRACT

The impact of ever-increasing numbers of online courses on the demographic composition of classes has meant that the notions of diversity, multiculturality and globalization are now key aspects of curriculum planning. With the internationalization and globalization of education, and faced with rising needs for an increasingly educated and more adequately trained workforce, universities are offering more flexible programs, assisted by new educational and communications technologies. Faced with this diversity of populations and needs, many instructors are becoming aware of the importance of addressing the notions of multiculturality and interculturality in the design of online however this raises many questions. For example, how do we integrate and address this multicultural dimension in a distance education course aimed at students who live in diverse cultural environments? How do the challenges of intercultural communication in an online environment affect online teaching and learning? What are the characteristics of an online course that is inclusive of all types of diversity, and what are the guiding principles for designing such courses?

We will attempt to answer some of these questions by first exploring the concepts of culture and learning cultures. This will help us to characterize the impact on online learning of particular cultural dimensions. We will then present and discuss different online instructional design models that are culturally inclusive, and conclude with the description of a mediated instructional training module on the management of the cultural dimension of online teaching and learning. This module is mainly addressed to teachers and designers of online courses.

Keywords: Online learning, globalisation, cross-cultural, diversity, instructional design

INTRODUCTION

Distance learning is one of the fastest growing areas in education (Moore & Tait, 2002) and developments in computer science and information and communications technologies have spurred this growth. The impact of ever-increasing numbers of online courses on the demographic composition of classes has meant that the notions of diversity, multiculturality and globalization are now key aspects of curriculum planning.

"In recent years, the two Ds—diversity and distance education—have been gathering momentum in higher and continuing education" (Bo-Yuen Ngai 2003, p. 157).

In a working paper on the globalization of education written for the Organisation for Economic Co-operation and Development (OECD), Marginson and van der Wende (2007) trace the new landscape in which post-secondary institutions are evolving:

Economic and cultural globalisation has ushered in a new era in higher education. . . In global knowledge economies, higher education institutions are more important than ever as mediums for a wide range of cross-border relationships and continuous global flows of people, information, knowledge, technologies, products and financial capital. Even as they share in the reinvention of the world around them, higher education institutions, and the policies that produce and support them, are also being reinvented (Marginson & van der Wende 2007, p. 3).

The International Association of Universities (IAU), which is affiliated with UNESCO and was created in 1950 to encourage cooperation among higher learning institutions worldwide, has in recent years observed intensified and more complex cross-border exchanges and cooperation among academic institutions:

Recent years have seen a tremendous expansion of the ways in which higher education goes 'international.' As well, international trends and developments taking place beyond national boundaries impact more easily on higher education policy at institutional and national levels, thus creating additional inter-connections between various changes. Consequently, it is not only difficult to keep track of the various concepts and terms used to describe new processes in the international aspects of higher education, it is also difficult to capture these interconnections. An additional challenge comes from the fact that innovations and changes are on-going and thus the field is evolving constantly" (International Association of Universities [IAU] 2006, p. 1).

With the internationalization and globalization of education, and faced with rising needs for an increasingly educated and more adequately trained workforce (Gunawardena & McIsaac, 1996), universities are offering more flexible programs, assisted by new educational and communications technologies. This greater flexibility is manifested as much in terms of format, content, goals, expressed needs and developed skills as in the modes and times of delivery (Collis & Moonen, 2001). Moreover, in a knowledge-based society, the key components of which are universally-accessible education and lifelong learning (Brown, 2002; Smith, 2002), higher learning institutions, in distance education and on-campus courses, are receiving an expanding and increasingly heterogeneous student population. The traditional 18- 21-year-old student cohort is now much more diversified, with many adults in continuing professional development programs (Gunawardena & McIsaac, 1996) and part-time students (Smith, 2002). The globalization of learning—a phenomenon amplified by increasingly accessible online and distance courses—while facilitating a broader circulation of ideas and thinking across the planet, is promoting the emergence of increasingly multicultural teaching and learning environments (Mason, 2002; 2003). Faced with this diversity of populations and needs, many instructors are becoming aware of the importance of addressing the notions of multicurality and interculturality¹ in the design of online courses and selection of technological tools for developing these courses and training programs (Dunn & Marinetti, 2002; McGee, 2002; Moore, Shattuck & Al-Harthi, 2006).

How do we integrate and address this multicultural dimension in a distance education course aimed at students who live in diverse cultural environments? How do we facilitate interaction and dialogue among individuals of widely differing cultural influences? How do the challenges of intercultural communication in an online environment affect online teaching and learning? What are the characteristics of an online course that is inclusive of all types of diversity, and what are the guiding principles for designing such courses? These are some of the important questions that more and more instructors and e-learning designers are asking themselves. It would seem, however, that few studies have systematically examined the link between cultural variables and the principles of online instructional design (Mason, 2003; Morse, 2003; Seufert, 2002):

Learners study collaboratively in multicultural teams. Instructors from different nations teach and facilitate students from all over the world. What could be the possible influence of cultural differences on the acceptance and use of online learning environments? Despite these potentials of Web-based education and the importance of cultural factors, there is a paucity of research that systematically analyzes culture-related variables to suggest design guidelines for culture-related, flexible, online learning environments (Seufert, 2002, p. 2).

We will attempt to answer some of these questions by first exploring the concepts of culture and learning cultures. This will help us to characterize the impact on online learning of particular cultural dimensions. We will then present and discuss different online instructional design models that are culturally inclusive, and conclude with the description of a mediated instructional training module on the management of the cultural dimension of online teaching and learning.

This module, of which the research and development were funded by the *Agence universitaire de la francophonie* (AUF), is mainly addressed to teachers and designers of online courses.

EXPLORING THE CONCEPTS

What Is Culture?

It is important to clarify the concept of 'culture' to better situate it in the context of an online multicultural teaching and learning environment. This is not an easy task, however, because there are multiple definitions of this term. As early as 1952, the U.S. anthropologists Kroeber and Kluckhohn had listed 164 definitions of culture, before proposing a definition that synthesized the common elements:

Culture consists of patterns, explicit and implicit, of and for behavior, acquired and transmitted by symbols constituting the distinctive achievement of human groups, including their embodiment in artifacts; the essential core of culture consists of traditional (i.e., historically derived and selected) ideas and especially their attached values; culture systems may, on the one hand, be considered as products of action, on the other as conditioning elements of further action (Agar, 2002, p. 115).

Tylor, one of the first to define this concept, proposed the following definition in 1871: "Culture ... is that complex whole which includes knowledge, belief, art, law, morals, custom, and any other capabilities and habits acquired by man as a member of society." (Tylor, 1924 [orig.1871]).

The U.S. anthropologist Linton saw culture as "the configuration of learned behaviours and their results, the components of which are shared and transmitted by the members of a given society" (Linton, 1945, trans. by Lyotard, 1977, p. 59 and retranslated here). Closer to home, in relation to intercultural training programs for the business world, Trompenaars and Hampden-Turner (1998) described culture as a spectrum of behaviours generated and adopted by a group of individuals to resolve problems and dilemmas.² Also in the context of the professional world, G.H. Hofstede and G.J. Hofstede (2005) offered the notion of culture as a collective programming of the mind that distinguishes members of one group or category from people in other groups.³ While there are numerous definitions, they all refer to four fundamental properties of culture: It is "holistic" because it encompasses all the elements characterizing the life of a group; it is "shared" because individuals in a social group adhere to a set of values and standards in response to the problems posed by their environment; it is "transmittable" from one generation to the next to ensure continuity of the culture through time; and last, it is "evolving" rather than static, enabling it to adapt to the surrounding world. To paraphrase the title of an article by Street (1993), culture is not a noun; it is a "verb"; the title clearly refers to the dynamic process of a culture that is constantly constructing itself.

In a study of the concept of cyberculture in an e-learning context, Reeder, Macfayden, Roche and Chase (2004) referred to a culture that is "negotiated" rather than "given," in the online discussions of students of various backgrounds with their instructors; this characterization resembles Hall's definition of culture in his book, *The Silent Language*, where he establishes a link of near-synonymy between culture and communication: "Culture is communication and communication is culture" (Hall, 1990, p. 186). This indissociable link between communication and culture is clearly made by another U.S. anthropologist, Agar, in a study of drug addicts in the U.S.:

When I landed at a hospital for narcotics addicts in the late sixties, I watched a young Black addict from one city meet an older White addict from another city, watched them meet for the first time and talk immediately about several things in a way I couldn't make any sense out of. Here were native speakers of American English I couldn't understand, and the difference between me and them, I knew right away, had something to do with culture, too (Agar, 2002, p. 118).

For Agar, as for Hall, the concept of culture can only be understood in relation to communication: "Culture grew up as a concept to cover the description of isolated communities. Now I want to use it to describe why two people who are different in some way have trouble communicating and what they can do about it. Culture needs to be hooked on to language. If the concept is to have a chance; it has to be changed too" (Agar, 2002, p. 122).

According to this line of thought, and contrasting with the traditional anthropological perspective, culture is not a static and spatially defined object that can be exhaustively described. Culture is defined gradually through experience and dialogue with the Other, and by assembling the differences between two cultural realities into a coherent whole:

The trick is to find out how the difference is related to other differences, to assemble a coherent picture of how they all fit together⁶⁷ to make up a

grand difference between you and them, a difference that leads to a different way of seeing and doing things... . Culture isn't something a group of people have; it's something you make up to fill in the spaces between them and you... Culture is something you create, a coherent connection of differences (Agar, 2002, pp. 127-128).

We will adopt this dynamic definition of a culture in constant construction because it applies particularly well to our context: online education in which students of varied cultural and linguistic backgrounds are communicating and interacting. It is in this multicultural interaction and "interstitial space between similarity and difference" (Zarate, 1993, p. 11) that students will gradually compare, revise, and reassess their cultural values and standards and together develop new ones, generating new cultural behaviours and creating what some refer to as a "third culture" in constant evolution (Bhabha, 1992; Hewling, 2004; Holec, 1988; Kramsch, 1996; Raybourn, 2003). Hewling powerfully illustrates this notion of an evolving third culture with the famous image of two faces seen in profile, revealing, in the "interstitial space," a vase or goblet: The space in the middle—is it really a goblet?—perhaps it is just a space, which happens to resemble a goblet, but which is in fact the ongoing product of participant joint endeavour . . . Could it be the manifestation of evolving understanding, a way of finding beliefs, behaviours and norms; a way of generating something that some might call culture? (Hewling, 2004, p. 3).

Learning Cultures and Cultural Dimensions

The manner and the educational system in which we learn are culturally defined. This is why it is often difficult to export educational systems and policies to other countries that do not share the same values and standards (Hall, 1990).⁴ Collis (1999), studying the impact of the cultural context on online learning, observed that the degree of acceptance and utilization of online courses is greatly influenced by learners' social, personal, organizational, professional or discipline-based culture. Learning cultures, with their differences and similarities, mix with varying degrees of success in multicultural classes. To observe and characterize the similarities and differences among diverse learning cultures, many researchers have chosen the cultural dimensions model that Dutch anthropologist G.H. Hofstede (1980) developed in the late 1970s, based on a study of the cultural values of IBM employees in over 55 countries. The most important contribution of this study, which later continued and now encompasses over 75 countries, was to identify and define four "cultural dimensions" which serve as measurement instruments and facilitate the comparison of certain aspects of different cultures⁵ (G.H. Hofstede and G.J. Hofstede 2005). The four dimensions identified by G.H. Hofstede are the relationship to authority ("small vs. large power distance");⁶ individualism vs. collectivism;⁷ masculinity vs. femininity;⁸ and tolerance of uncertainty and ambiguity (uncertainty avoidance).⁹ His partnership with Michael Harris Bond, of Hong Kong University, allowed him to explore these cultural dimensions more deeply with students and professionals in numerous Asian countries and regions, and to confirm the existence of these four dimensions, with a small nuance in regard to the fourth dimension, uncertainty avoidance.

In Asian societies, imbued with Confucian thought and philosophy, this was manifested by a clash of values when a future-looking perspective comes up against a perspective rooted in the present and past. G.H. Hofstede therefore added a fifth dimension to his model: long-term versus short-term orientation.¹⁰ In addition to this multidimensional model is Hall's model (1976, 1990); he proposed to compare⁶⁸ cultures according to the extent of their dependence on the context of the message.

According to this model, "high-context cultures" depend on non-verbal, situational and contextual elements to reinforce the meaning of the message. In contrast, "low-context cultures" depend on the explicitness of the verbal message itself for effective communications (Hall, 1976; 1990).

THE IMPACT OF CULTURAL DIMENSIONS ON ONLINE TEACHING AND LEARNING

In a study of the impact of cultural factors on the behaviour of students in an online course, Morse (2003) identified elements that differentiate high-context learning cultures from low-context learning cultures.

Table: 1
Morse (2003, pp. 42-43)

Low context learning	High context learning
Emphasis on learning outcomes (students as contributors to exploration and/or development): student centred learning, active learning	Emphasis on teaching inputs (students as recipients and reproducers of material): All materials provided in class Rigid parameters set in course syllabi Identical syllabi for all students
Emphasis on attitudinally based "deep" learning: Development of personal skills, and attitudes toward lifelong learning	Content and knowledge based learning: Little emphasis on personal, transferable skills "diligence overcomes stupidity" = hard work
Wide variety of learning tools and assessment instruments: Assessment as feedback instrument Wide range of assessment/feedback tools (i.e. group assessment, teamwork, evaluation, etc.)	Individual and examination-based assessment: Frequent, regular, highly content specific assessment: Assessment is focus of learning Assessment identical for all
Informal lecturer/student relationships: Teacher as guide/facilitator/mentor in learning process Inherent informality of frequent one-on-one contact Intergenerational differences evident	Formal lecturer/student relationships: student performance dependent on teacher knowledge Address by title as a measure of respect (first name a sign of disrespect) Non-confrontational: accept teacher knowledge without question (avoid loss of face) Inherent wisdom in male and/or older persons dominates learning
High student numbers/high contact time: Efficient use of teaching resources sought	Small group sizes/low contact time: Deep teacher/student relationship sought

Of course, the diversity of students' personal experiences and their learning style will also nuance the two instructional approaches summarized in Table 1. As Collis (1999) reminds us, we all belong to several cultural groups and our individual cultural identities are constructed gradually through the interaction of these different cultural layers. It is conceivable, however, that in an online learning context, students from a high-context culture will expect a certain degree of formality and precise instructions, for example, to search the site for additional resources that the instructor would then incorporate into the course content.

Inversely, students from a low-context culture would probably adapt more easily to an informal style of online interaction and have no problem exploring several information sources and documents on the Web to supplement course content on⁶⁹ their own.

In a similar study, Moore, Shattuck, and Al Harthi et al. (2006) adopted G.H. Hofstede's cultural dimensions and, while describing different online learning cultures, contrasted the principle characteristics of a U.S. distance education philosophy—which promotes the idea of a partnership between the instructor and student and facilitates interaction and interactivity in a systematic individually focussed approach—with the characteristics of a more Confucian philosophy of education, in which the hierarchical relationship between student and teacher is very important and where success in examinations—seen as a stepping stone to professional success—is often perceived as the ultimate goal (Beck, 2000). Moore et al. (2006), describing two experiments conducted respectively by Al Harti (2005) and Shattuck (2005), one with Arab students and the other with Asian students, clearly illustrate the impact of cultural values on the degree of acceptance of the online learning experience. These two groups of students, located in their respective countries, took distance online courses that had been designed and taught by U.S. instructors. The students' behaviour was analyzed using G.H. Hofstede and G.J. Hofstede's cultural dimensions (2005). The uncertainty avoidance and individualism versus collectivism dimensions were of particular interest in these studies. An example of the former was the anxiety experienced by the Arab students when they were faced certain unfamiliar situations or when given vague explanations. The latter dimension, individualism versus collectivism, was manifested in the constant fear of Arab women students—who, as women in their culture, are responsible for upholding morality and family honour—that they would say something inappropriate or make a mistake during interactions of the electronic discussion group. Needless to say, this anxiety limited their participation. The Asian students, for their part, were very aware of an imposed model, centred on the individual and based on a constructivist and interactive approach that did not always correspond to their cultural expectations and traditions. "Constructivist-based pedagogy couched in the highly interactive communication world can be a lonely place for an international online learner whose cultural experiences are different than the dominant educational cultures" (Moore et al., 2006, p. 15).

The influence of cultural values on educational systems explains a number of differences that, while not stereotypical, can be observed on a general level. Differences, for example, between the secondary and post-secondary systems of North America—characterized largely by flexibility in the choice of courses, the preference for active and reflective pedagogies, and collaborative learning strategies—and the secondary and post-secondary systems of Asia, where we see more centralized programs and educational policies and a strong Confucian influence, favouring fairly structured learning, a preponderance of lecture courses and the valuing of competition in learning (Liu, 2007; Dunn & Marinetti, 2007). Oliver (1999) has observed that Japanese students are nonplussed by the flexibility of the U.S. university system, where it is possible to select courses. Liu (2007), observing and contrasting, in a distance online learning context, groups of Asian students (who belong to a fairly high-context culture with values tending to be more collectivistic than individualistic), with groups of North American students (whose cultural group is defined as low-context, with more individualistic values), remarks that the Asian students tended to ask fewer questions in the discussion forums than their North American peers.

Also, the Asian groups preferred that e-learning course instructions be posted on the site, while students in the other group depend more on information given by their peers. Seufert (2002) also observed these behaviour differences when she compared⁷⁰ students from a more individualistic culture with students from a collectivistic culture.

The first group demonstrated a more open and precise communication model, and was more disposed to answering ambiguous messages. Kim and Bonk (2002) observed a difference in the communicational behaviours of Western and Asian students, with the first being more direct, explicit and expressive. The authors also remarked that these differences in communicational style had a significant impact on collaboration behaviours during online learning activities.

Kramsch & Thorne's study (2001) offers a good example of how miscommunication in an intercultural asynchronous online dialogue between American and French language students was caused, not so much by deficient individual linguistic styles, but mostly by a lack of understanding of 'cultural genres' in each other's discourse. It appears from their study that students would have been better prepared to deal with 'global communicative practices' if they had received training in intercultural communication skills, allowing them to critically analyze and appropriately interpret the differences of cultural communication genres they were faced with during their online discussions.

This raises the issue that participants of an online multicultural community have to develop, more than linguistic proficiency and accuracy to transmit one's culture, strong intercultural communicative skills to negotiate an emerging cyberspace. To paraphrase Byram (2000), developing intercultural competence would mean developing an attitude of curiosity and openness, acquiring knowledge of societal and individual interaction, and developing skills to and critically interpret new cultural knowledge.

Table: 2
Cortazzi and Jin (1997, p. 85)

<i>Student view of teacher roles</i>	<i>Teacher view of teacher roles</i>
<ul style="list-style-type: none"> • Be an authority, expert • Be a model: knowing that, how to • be a parent, friend • know students' problems • give answers, clear guidance: teach us what to do 	<ul style="list-style-type: none"> • be a facilitator, organiser • be a model of how to find out • be a friendly critic
<i>Student view of student roles</i>	<i>Teacher view of student roles</i>
<ul style="list-style-type: none"> • develop receptivity, collective harmony, apprenticeship, deductive learning • respect teacher: learn by listening and reflection • learn methods, technical advances • focus on product, result 	<ul style="list-style-type: none"> • develop independence, individuality, creativity, inductive learning • participate: engage in dialogue • develop critical thinking • focus on process of learning, research skills • ask if there are problems • find own answers • should know what to do or work it out

In a study comparing the cognitive styles of Asian and Western students, Nisbett (2004) studied five areas that differentiate the manner of thinking of these two ⁷¹

populations: sciences and mathematics, attention and perception, causal inference, knowledge organization and reasoning.

According to the author, Western students were more likely to use abstract principles, rules and logic to explain their environment, applying these rules to every situation, while Asian students were more likely to contextualize their environment, consider the relationships and variables of objects, and to apply rules in a specific manner to each individual case: "To set aside universal rules in order to accommodate particular cases seems immoral to the Westerner. To insist on the same rules for every case can seem at best obtuse and rigid to the Easterner and at worst cruel" (Nisbett, 2004, p. 65).

In a qualitative and quantitative study of the perceptions of a group of Chinese students and instructors regarding the instructional environment, Cortazzi and Jin (1997) showed that in a society that is heavily influenced by Confucian philosophy, knowledge is considered central to learning and the teacher is viewed as possessing this knowledge. Table 2 summarizes the findings of this longitudinal study that was carried out by means of interviews, surveys, filmed class observations, and student work.

Kinuthia (2007), citing the work of Semali (1999), showed that differences with regard to the importance of team work, consensus and group participation—characteristics of most African cultures—made it imperative to rethink instructional approaches to be more consistent with students' behaviours and cultural contexts. Looking at Kramsch and Thorne's study it seems that to successfully interact in the 'liminal' space we were describing earlier, participants of an online multicultural community have to develop, more than linguistic proficiency and accuracy to transmit one's culture, strong intercultural communicative skills to negotiate an emerging cyberspace. Kramsch and Thorne's study (2001) offers a good example of how miscommunication in an intercultural asynchronous online dialogue between American and French students was caused, not so much by deficient individual linguistic styles, but mostly by a lack of understanding 'cultural genres' in each other's discourse. We can conclude from their study that students would have been better prepared to deal with 'global communicative practices' if they had received training in intercultural communication skills, allowing them to critically analyze and appropriately interpret the differences of cultural communication genres they were faced with during their online discussions.

To paraphrase Byram (2000), developing intercultural competence would mean developing an attitude of curiosity and openness, acquiring knowledge of societal and individual interaction, and developing skills to and critically interpret new cultural knowledge. Last, the personal account of Simone Conceição (2002), a young Brazilian woman who decided to study in the United States, provides us with a concrete example of the culture shock felt by some students who are placed in a learning situation in which the pedagogical approach and dynamics differ from the cultural context and values to which they are accustomed.

Even though immigrating to the United States freed me somewhat from traditional female roles, it challenged my assumptions about my learning. I came from a culture where group cooperation was emphasized, time was relative, thinking was holistic, affective expression was evident, extended family was the norm, the worldviews of other cultures were generally accepted, and interactions were socially oriented.

*In Brazilian culture, I displayed a field-dependent cognitive learning style,*⁷²

which is relational, holistic, and highly affective. A cognitive style comprises perception and personality that presents characteristics of being socially

dependent, eager to make a good impression, conforming, and sensitive to social surroundings. Conversely, field-independent and analytic thinking with limited affective thinking are characteristics of the Euro-American cognitive learning style. . . . Moving to the United States and joining its higher education system required that I adapt and expand my learning style to accommodate the independent cognitive style of my new environment (Conceição 2002, p.38).

It seems that to successfully interact in the 'liminal' space we were describing earlier, participants of an online multicultural community have to develop, more than linguistic proficiency and accuracy to transmit one's culture, strong intercultural communicative skills to negotiate an emerging cyberspace. Kramsch and Thorne's study (2001) offers a good example of how miscommunication in an intercultural asynchronous online dialogue between American and French students was caused, not so much by deficient individual linguistic styles, but mostly by a lack of understanding 'cultural genres' in each other's discourse. We can conclude from their study that students would have been better prepared to deal with 'global communicative practices' if they had received training in intercultural communication skills, allowing them to critically analyze and appropriately interpret the differences of cultural communication genres they were faced with during their online discussions.

To paraphrase Byram (2000), developing intercultural competence would mean developing an attitude of curiosity and openness, acquiring knowledge of societal and individual interaction, and developing skills to and critically interpret new cultural knowledge. As we can see, it is not a simple matter to design a teaching environment that takes into account the impact of cultural dimensions on the perceptions of students and teachers. Tylee (2002) explored the impact of cultural dimensions on the perception of online learning environment accessibility. More specifically, she examined the validity of online technology as a learning medium and the role in learning of a culturally appropriate interface design. Based on the work of G.H. Hofstede (1980) and Marcus and Gould (2000), she proposed a list of questions for the online course designer:

- What degree of personal interaction should be developed?
- What motivational aspects should be included?
- What balance should there be between group and individual opinions?
- How will high uncertainty avoidance cultural groups' need for certainty be addressed?
- Will learning emphasize individual or group work?
- How should social and contextual dimensions be addressed?
- Does the nature of the work promote a critical, unconventional or conservative perspective?
- Is the teaching style didactic rather than interactive and participatory?
- How should the issue of the different learning styles of learners from culturally diverse backgrounds be addressed?
- Is it preferable to develop separate interfaces and courses for different cultural groups?
- Should different learning approaches be offered to cater to different learning styles?
- Should there be a choice of evaluation activities that addresses cultural⁷³ differences?¹¹

A similar series of questions could be posed with regard to software and computer platforms developed in a particular cultural context that are based on the values and standards inherent to this context. For example, Reeder et al. (2004) have revealed the predominance of North American values in the design of communications platforms that promote speed and openness in communications and a level of informality and questioning that may not correspond to other cultures.¹²

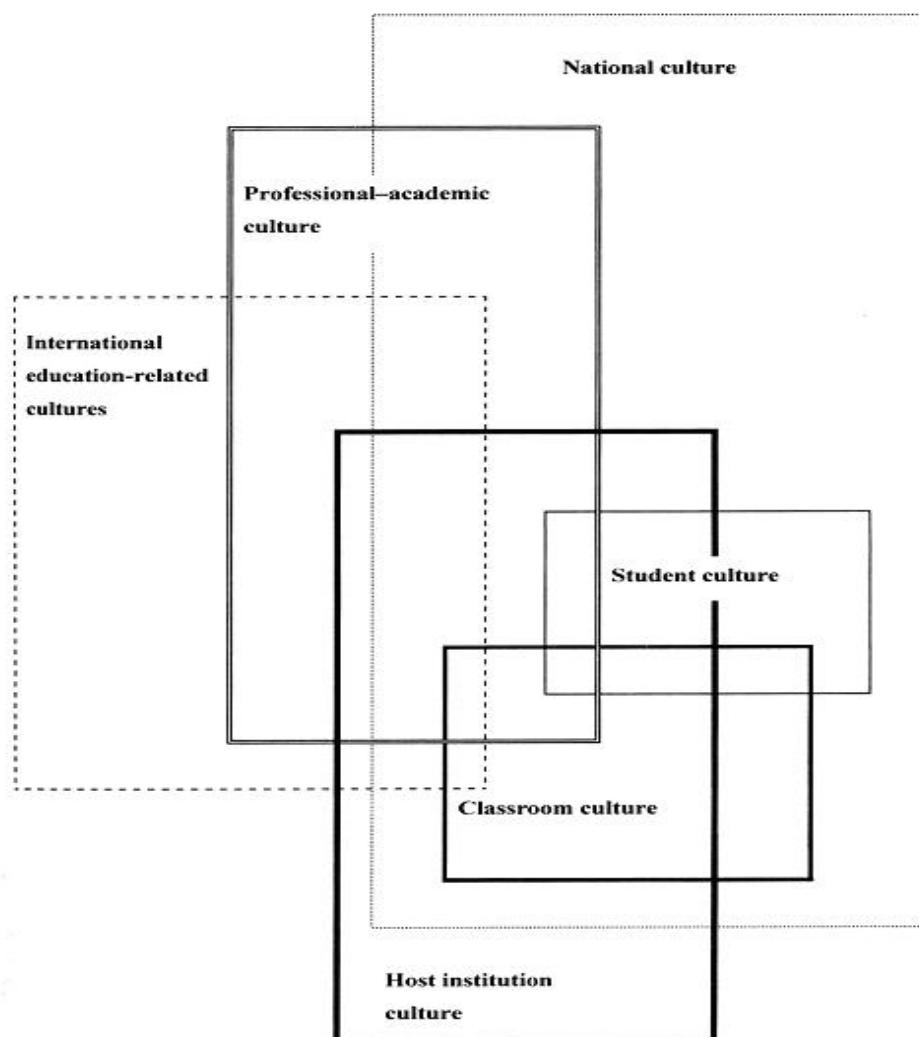


Figure: 1
Fay & Hill 2003, p. 17

In addition to these cultural layers are the characteristics of an Internet culture, a cybersculture, which as described by Walton and Vukovic (2003), can greatly influence the type and level of Internet use in online learning. In a study of the website use⁷⁴ behaviour of South African students, the authors challenged current research findings on website user-friendliness, most of which is based on the observations of

participants from privileged Western backgrounds. The 20 students who took part in their study, all Internet novices, had to struggle to interpret the tree structure

diagrams and visual Web navigation conventions ("breadcrumb" or "fish-eye view") that imply an understanding of these hierarchical values: "As students learn to use Web-based resources, they need to master a wide range of new visual conventions. The hierarchical tree from literate Western culture pervades both the interfaces of websites and often—through databases and hierarchical file structures—their underlying organization" (Walton & Vukovic, 2003, p. 68). What, then, are the possible instructional design models that will take this diversity into account?

INSTRUCTIONAL DESIGN MODELS FOR CULTURALLY INCLUSIVE ONLINE TEACHING AND LEARNING

The Multidimensional Model Of Collis, Vingerhoets And Moonen (1997)

According to Collis (1999), the pedagogical approach and technology of an online course should anticipate users' choices from among numerous variables that express culturally specific values.

This means that all systems, from the start of the design process, must integrate this notion of flexibility. Collis, Vingerhoets and Moonen (1997) identified seven dimensions of a course where the notion of flexibility can be applied, and where the student in a distance learning situation could make a choice. These seven dimensions involve:

- social organization of the course
- selection of course content, progression, and learning activities
- selection of course materials
- selection of a mode of interaction in the course
- selection of the technological platform supporting the course
- language(s) used in the course, and;
- the conditions under which the course is given (entirely distance or a hybrid approach)

To these dimensions are added those of the desired time flexibility, instructional approach, terms of admission to the course, assessment of learning, and so on.

Seufert's Cubic Model (2000)

Seufert (2000) took the notion of flexibility and added two more dimensions, proposing a three-dimensional model with three interacting categories of considerations that should be taken into account when designing an online course that responds to cultural diversity:

- "flexibility" and "variety" of technological and communications tools, methodologies, the roles of instructors and students in a variety of learning situations, and the resources drawn on as part of a course's pedagogical framework;
- simplicity in the choice of technological tools and their utilization, and regarding the types of interactions, structure of activities, etc.
- awareness of the multicultural context and cultural differences, and thinking about online discussions and interactions, course format,⁷⁵ content and progression, materials, etc.

McLoughlin's Inclusive Pedagogical Model (2007)

McLoughlin (2007) proposed a pedagogical framework that emphasizes the internationalization of learning resources based on a constructivist approach, to provide a degree of flexibility and plurality to the learning situation.

Table: 3
Adapted from McLoughlin (2007, p. 233)

Degree of inclusivity	Examples of delivery
Low degree of cultural inclusivity — 	Type 1 – Low level of inclusivity in teaching and learning (assimilation) Online resources which recognise student differences without recognising differences in strategies approaches and learning differences. Offers no social interaction or dialogue. Learning is information transmission or "shovelware". Assessment is summative and focuses on products, not processes. Low level of constructive alignment. Type 2 – Medium level of inclusivity in teaching and learning (accommodation) Recognises that learners have different strategies and offers choice in learning tasks and adaptation of methods to accommodate students who are different. Does not include culturally-inclusive assessment practices and focuses excessively on teaching approaches rather than learning. Moderate level of constructive alignment.
High degree of cultural inclusivity + 	Type 3 – High level of cultural inclusivity (High level of constructive alignment) Recognises that while there are differences among students, their learning needs are best served by a focus on designing constructivist learning activities that recognise that: <ul style="list-style-type: none">• students may adopt different learning approaches and have different levels of prior knowledge• the cultural differences and perspectives that student bring to learning are assets, not liability• setting high expectations and challenges for all students thus creating a motivating climate• assessment should be authentic, and include diagnostic assessment and outcome assessment.

Accommodation of diversity can be accomplished, first, by adopting cognitive models and learning theories that favour inclusiveness; second, by recognizing the plurality and cultural diversity of learning contexts and students, and last, by designing learning and evaluation activities that are consistent with culturally inclusive pedagogical goals and approaches

The socio-constructivist and sociocultural learning theories arising from the work of Vygotsky (1978), are, in that author's opinion, those most likely to create such learning contexts. Based on activities that are linked to the real world and active student participation, the acquisition of knowledge is a process that is both social and individual. From this perspective, learning is a form of acculturation.

Table 3 illustrates the degree of cultural inclusiveness in the instructional design of the course based on McLoughlin's model.

Henderson's Multiple Cultures Model

Henderson (1996, 2007) affirms that while the constructivist approach is important to incorporating cultural diversity into the learning context, it is insufficient. In contrast to the multicultural and inclusive models (recognition of the multicultural reality of a society in which each culture is on equal footing) and the "inverse" model (the dominant perspective is that of the minority culture), Henderson proposes the multiple culture model, based on the consistent interaction of three specific cultural influences that are fully integrated into the course design: academic culture, the dominant culture, and the minority culture or cultures affected by the teaching and learning situation in question. An eclectic approach, more than a single socio-constructivist approach, makes it possible to integrate these three cultural influences into the instructional design of a course (see Figure 2).

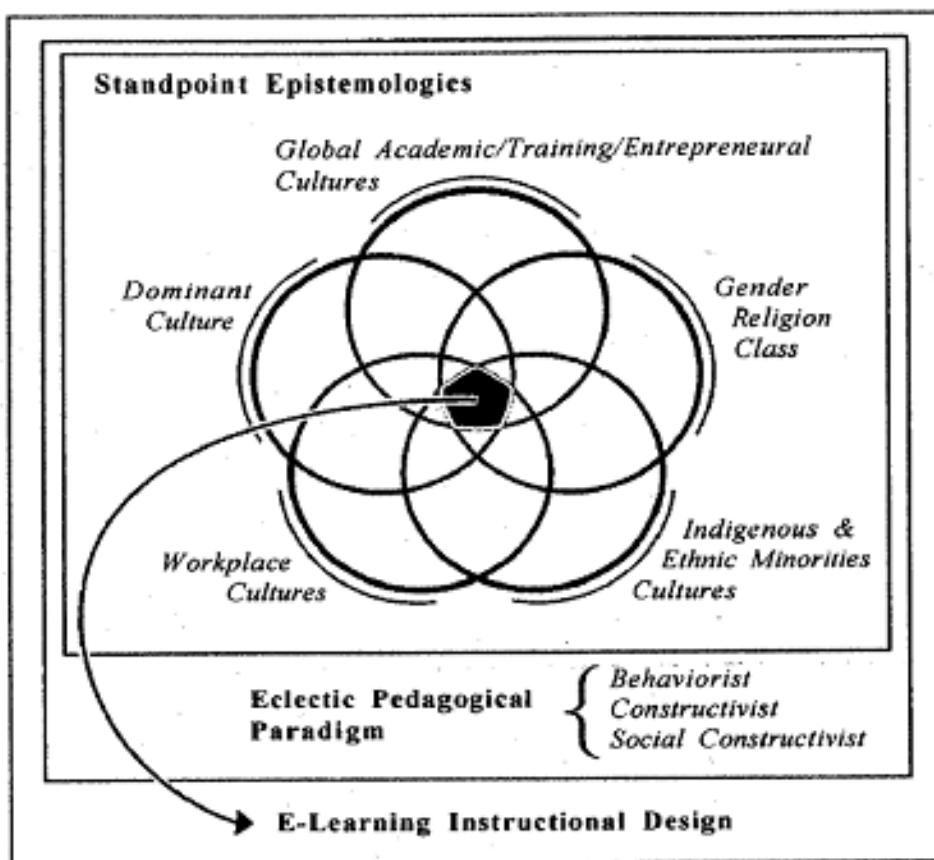


Figure: 2
Henderson (2007, p.136)

In this model, epistemological and educational philosophy differences among the academic, dominant and minority cultures are thoroughly considered in the course design. Henderson, for example, refers to the relationship to knowledge:

in a Western epistemology, from either a constructivist or instructivist perspective, each individual has the right to acquire knowledge. These contrasts with the Australian Aboriginal epistemology, where access to

certain forms of knowledge is not a right, but rather a privilege: elders will not transmit certain types of knowledge to the younger generations who, excessively influenced by Western culture, are unlikely to act as guardians of that knowledge. Furthermore, in Aboriginal culture, the person who possesses knowledge does not own it, but is rather its guardian. This important distinction is manifested in behaviours that could be misunderstood in the Western dominated academic world: the requirement to cite sources in academic work is not culturally grounded in Aboriginal culture (Henderson, 1996).

In Henderson's multiple cultures model the minority cultures' point of view must be integrated into each of the educational dimensions involved in the design of a teaching and learning environment. This signifies the adoption of an "eclectic" approach, which, far from necessitating the abandonment of more traditional practices, encourages the combination of objective and constructive, behavioural and cognitive, abstract and concrete elements, etc., in an overall dynamic that, however, tends toward a gradual adoption of the constructivist paradigm. This gradual adoption happens during activities involving critical study and questioning of the epistemological, philosophical, economic, political contexts, etc. of the notions addressed in the course and teaching and learning practices. This critical regard, sought regularly by the program instructor in the activities he or she proposes, makes it possible to place cultural relativity and plurality at the centre, rather than on the sidelines, and assists students, by sensitizing them to this cultural plurality, in constructing a learning space, as part of their interactions, in which the multiple cultures are made visible and discussed (Henderson, 1996).

"E-PÉDAGOGIES INTERCULTURELLES": A MEDIATED INSTRUCTIONAL TRAINING MODULE

Designing inclusive learning online environments for an ever changing and fluid world, as we have seen, encompasses many complex issues. As mentioned in the introduction, an increasing number of instructors and e-learning designers are asking important questions: how do we integrate and address this multicultural dimension in a distance education course aimed at students who live in diverse cultural environments? How do we facilitate interaction and dialogue among individuals of widely differing cultural influences? How do the challenges of intercultural communication in an online environment affect online teaching and learning? What are the characteristics of an online course that is inclusive of all types of diversity, and what are the guiding principles for designing such courses? From these queries emerged a project to develop an online professional development module entitled "e-pédagogies interculturelles" (intercultural e-pedagogies).

This project was funded by a grant from the *Agence universitaire de la francophonie* (AUF) and is the fruit of an international collaboration of teachers/researchers in Canada, Switzerland and Cameroon. Based on a review of the scientific literature of the subject, and questionnaires and group and individual interviews with instructors and students in the three partner institutions, the project's three key topics and goals⁷⁸ were: the identification of the cultural factors and dimensions affecting online teaching

and learning; the examination and discussion of different educational models and teaching and learning practices that facilitate online intercultural understanding and dialogue; and finally, the development of a self-paced e-learning module offering online course designers and instructors practical guidance, experiential learning activities and resources.

The review of the scientific literature we have summarized in this paper served as the foundation for the theoretical content of the module and inspired its learning activities. The module is presented in nine stages or "Explorations": after the first introductory stage come seven stages in which different notions are explored with reflective activities that may often include an opportunity to analyze one's own teaching/learning context in light of theoretical notions and research reports that are presented in the course of the module.

Each stage begins with reflective activities based on video, audio or text presentations by Canadian, Swiss and Cameroonian instructors and students on their cultural representations of online education. The last section of the module refers to the notions and activities from the preceding exploration stages and guides users in designing a teaching scenario for an online course of their own, taking into account the multicultural dimension of the target audience. Users have access to a "personal electronic notebook" for recording their thoughts and activity results during the module, or for sharing with other users in the "virtual community" space created for this purpose.

Last, an "online resources" space was created to archive the numerous bibliographic references collected in the course of developing the project. This space may also serve as a repository for any relevant resources for the module that users will undoubtedly add as time goes by.

CONCLUSION

In conclusion, this module, the activities and theoretical content of which were presented and tested in a number of presentations and instructional training workshops in Cameroon, Kenya, Saudi Arabia, Austria, France and Canada, can be accessed freely at: <http://www.e-pedagogiesinterculturelles.org>.

It holds a Creative Commons licence in the aim of encouraging eventual users to appropriate its content, and adapt or modify it according to need and the training context. The module can be used independently by individual users or by a more formal group.

Developed first in French, we are planning to produce an expended version in English. Concurrently we intend to investigate how this professional development module is used and perceived by a diverse audience with a view to improve subsequent versions.

One of the initial goals of this project was to facilitate the sharing of expertise and exemplary practices with regard to cultural diversity in online teaching. We hope that the "Virtual Community" tool will be used to create an intercultural community of practitioners seeking to share their diverse experience, knowledge, and know-how in order to improve and enrich this resource.

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Notes

¹ Here is how these two terms are defined in the Dictionnaire International des Termes Littéraires (DITL), under the "interculturality" entry: "In the compound word, "interculturality," "inter" expresses spatial or temporal distance, distribution or spread, which, like "culturality," refers to relationships between two or more civilizations. The notion of interculturality therefore implies the existence of at least two civilizations and the relationships between them. . . while the notion of multiculturality only presupposes the existence of elements or representatives of several civilizations, such as the presence of individuals from different civilizations in a given society, without actually specifying the nature and quality of their relationships" (translation of the "interculturalité" entry in the Dictionnaire International des Termes Littéraires).

² "Culture is the way in which a group of people solves problems and reconciles dilemmas." (Trompenaars & Hampden-Turner, 1998: 6).

³ It is the collective programming of the mind that distinguishes the members of one group or category of people from others (G.H. Hofstede & G.J. Hofstede, 2005, p. 4)

⁴ "How one learns is culturally determined, as is what one learns" (Hall, 1976, p. 166). "Education and educational systems are about as laden with emotion and as characteristic of a given culture as its language. It should not come to our surprise that we encounter real opposition to our educational system when we make attempts to transfer it overseas" (Hall, 1990, p. 47).

⁵ "A dimension is an aspect of a culture that can be measured relative to other cultures" (G.H. Hofstede & G.J. Hofstede, 2005, p. 23).

⁶ The relationship to authority or hierarchical distance (power-distance) corresponds to the degree of inequality that is expected or accepted by individuals. Cultures⁸⁴ with hierarchical tendencies seek the stability established and maintained by a

hierarchy, while cultures with egalitarian tendencies prefer change, generated by individual autonomy and expertise.

⁷ This dimension corresponds to the degree of autonomy and independence demanded by members of a society. Personal accomplishments are valued by more individualistic societies, while harmony and solidarity are sought by collectivistic societies.

⁸ The dimension that confronts masculine values with feminine values corresponds to the degree of importance accorded to the values of success and possession (masculine values) and to the social environment and mutual aid (feminine values). The more differentiated the roles, the more the society exhibits masculine traits; the more interchangeable the roles, the more feminine the traits.

⁹ Uncertainty avoidance corresponds to a society's degree of tolerance of anxiety over future developments. Some cultures prefer uncertainty, flexible rules and relationships. Others seek to avoid this and need established rules that are applied uniformly to everyone.

¹⁰ Long-term orientation versus short-term orientation refers to the manner in which members of a society deal with deferred gratification of their material, social and emotional needs. In the long term, values are future oriented: perseverance and a sense of economy. In the short-term, values are rooted in the past and present, including respect for tradition, responsibility for one's social commitments, reciprocal acts of courtesy, saving face, etc.

¹¹ Adapted from Tylee (2002, pp. 10-11).

¹² "speed, reach, openness, quick response, questions, debate and informality" (Reeder et al., 2004, p. 92).